

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IL2004/001043

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 B01J19/00 G01N33/557 G01N33/543

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 B01J G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data, PAJ, EMBASE, INSPEC, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KARLSSON ROBERT ET AL: "Surface Plasmon Resonance Detection and Multispot Sensing for Direct Monitoring of Interactions Involving Low-Molecular-Weight Analytes and for Determination of Low Affinities" ANALYTICAL BIOCHEMISTRY, vol. 228, no. 2, 1995, pages 274-280, XP002319706 ISSN: 0003-2697 page 274, right-hand column, paragraph 2 page 275, left-hand column, paragraph 2 page 275, right-hand column, last paragraph - page 277, right-hand column, last paragraph page 278, right-hand column, paragraph 3 - page 280, right-hand column, last paragraph figures 2-4	1-6,12
Y	page 274, right-hand column, paragraph 2 page 275, left-hand column, paragraph 2 page 275, right-hand column, last paragraph - page 277, right-hand column, last paragraph page 278, right-hand column, paragraph 3 - page 280, right-hand column, last paragraph figures 2-4	1-11
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the International filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the International filing date but later than the priority date claimed

- \*T\* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the International search

25 May 2005

Date of mailing of the International search report

13.07.2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Goetz, M

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IL2004/001043

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 429 807 A (MATSON ET AL) 4 July 1995 (1995-07-04) column 1, line 44 – column 2, line 16 column 3, line 35 – column 4, line 5 column 4, line 60 – column 7, line 4 claims 1,2,5-8,11,12,14-17; figures 1,2,5-8 -----	1-11
Y	WO 03/065041 A (SRU BIOSYSTEMS, LLC; CUNNINGHAM, BRIAN, T; PEPPER, JANE; LIN, BO; LI,) 7 August 2003 (2003-08-07) page 3, lines 6-25 page 4, line 17 – page 6, line 13 page 17, lines 5-15 page 23, line 20 – page 26, line 17 page 31, line 22 – page 35, line 2 page 38, line 6 – page 40, line 7 page 46, line 18 – page 48, line 3 page 51, line 22 – page 52, line 7 claims 1,12,14-19,23-26,41,42; figures 18,33,42; example 14 page 9, lines 1-9 page 18, lines 19-21 page 40, line 8 – page 41, line 4 page 45, lines 12-20 figure 9; example 8 -----	1-11
X	US 2003/128043 A1 (ZELTZ PATRIC ET AL) 10 July 2003 (2003-07-10) paragraph '0007! paragraphs '0016! – '0026! paragraphs '0047! – '0053! claims 1,11,13; figures 1-8 -----	12
A	WO 03/056296 A (KLAKAMP SCOTT, L; MYSZKA, DAVID, G) 10 July 2003 (2003-07-10) the whole document -----	1-11
X	US 2003/198967 A1 (MATSON ROBERT S ET AL) 23 October 2003 (2003-10-23) figure 1 paragraphs '0006! – '0009! paragraph '0023! paragraphs '0026!, '0027! paragraph '0029! paragraph '0031! paragraphs '0035!, '0036! paragraphs '0042!, '0043! claims 1,2,4,5,10,11; examples 1-5 -----	12,17
	-/--	

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IL2004/001043

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 268 141 B1 (MATSON ROBERT S ET AL) 31 July 2001 (2001-07-31) column 2, lines 19-37 column 2, line 62 - column 3, line 9 column 4, line 56 - column 9, line 15 column 10, lines 22-46 claims 1,12,14-17 -----	12,17
X	US 6 200 814 B1 (MALMQVIST MAGNUS ET AL) 13 March 2001 (2001-03-13) column 3, lines 15-40 column 4, lines 4-39 column 10, lines 5-44 column 11, lines 7-22 column 13, lines 30-58 column 15, line 37 - column 16, line 27 claims 1,2; figures 13A-13E -----	12-17
X	US 6 498 010 B1 (FITZGERALD STEPHEN PETER ET AL) 24 December 2002 (2002-12-24) column 3, lines 36-53 column 5, lines 17-47 column 5, line 64 - column 7, line 34 claims 1,3,4,6-9,17,18; example 1 -----	12,17
X	LOFAS S ET AL: "BIOANALYSIS WITH SURFACE PLASMON RESONANCE" SENSORS AND ACTUATORS B, ELSEVIER SEQUOIA S.A., LAUSANNE, CH, vol. B05, no. 1 / 4, 1 August 1991 (1991-08-01), pages 79-84, XP000265940 ISSN: 0925-4005 figure 2 page 79, right-hand column, last paragraph page 82, left-hand column, paragraph 3 -----	12,13,17

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IL2004/001043

### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  

1-17

  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

BEST AVAILABLE COPY

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-11

Method for determining kinetic parameters between a first and a second binding member.

---

2. claims: 12-17

Method for localizing a molecular species on microspots on a surface.

---

3. claims: 18-28

A system (apparatus) for detecting a plurality of binding rections between probe and target species.

---

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International Application No  
**PCT/IL2004/001043**

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
US 5429807	A 04-07-1995		DE 69418595 D1 DE 69418595 T2 EP 0675760 A1 JP 8505407 T WO 9511748 A1	24-06-1999 16-09-1999 11-10-1995 11-06-1996 04-05-1995
WO 03065041	A 07-08-2003		US 2003027327 A1 CA 2474432 A1 EP 1468291 A1 WO 03065041 A1 US 2003032039 A1 US 2003017580 A1 US 2003017581 A1 US 2003026891 A1 US 2003113766 A1 US 2003092075 A1 US 2003068657 A1 US 2003077660 A1 US 2004132214 A1	06-02-2003 07-08-2003 20-10-2004 07-08-2003 13-02-2003 23-01-2003 23-01-2003 06-02-2003 19-06-2003 15-05-2003 10-04-2003 24-04-2003 08-07-2004
US 2003128043	A1 10-07-2003		DE 10152690 A1 CA 2408462 A1 EP 1304166 A1 JP 2003185664 A	08-05-2003 19-04-2003 23-04-2003 03-07-2003
WO 03056296	A 10-07-2003		AU 2002365252 A1 CA 2458795 A1 EP 1428007 A2 WO 03056296 A2	15-07-2003 10-07-2003 16-06-2004 10-07-2003
US 2003198967	A1 23-10-2003		EP 1504258 A2 WO 03091446 A2	09-02-2005 06-11-2003
US 6268141	B1 31-07-2001		EP 1208226 A2 JP 2002544508 T WO 0070088 A2 US 2001039018 A1	29-05-2002 24-12-2002 23-11-2000 08-11-2001
US 6200814	B1 13-03-2001		DE 69900714 D1 DE 69900714 T2 EP 1021703 A1 JP 2002509248 T WO 9936766 A1 US 2001055817 A1	21-02-2002 27-06-2002 26-07-2000 26-03-2002 22-07-1999 27-12-2001
US 6498010	B1 24-12-2002		AT 289684 T AU 713388 B2 AU 6198898 A BR 9800655 A CA 2235183 A1 CN 1215167 A , C CZ 9801169 A3 DE 69829089 D1 EG 22471 A EP 0874242 A1 GB 2324866 A , B HK 1012202 A1 HR 980215 A1	15-03-2005 02-12-1999 22-10-1998 10-08-1999 21-10-1998 28-04-1999 11-11-1998 31-03-2005 26-02-2003 28-10-1998 04-11-1998 17-05-2002 28-02-1999

**BEST AVAILABLE COPY**

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IL2004/001043

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6498010	B1	HU - 9800920 A1	28-10-1998
		ID 20179 A	22-10-1998
		JP 10319011 A	04-12-1998
		NO 981766 A	22-10-1998
		NZ 330227 A	28-10-1999
		PL 325914 A1	26-10-1998
		RU 2168174 C2	27-05-2001
		SG 87765 A1	16-04-2002
		SK 51098 A3	04-11-1998
		TR 9800737 A1	23-11-1998
		ZA 9803345 A	21-04-1999

BEST AVAILABLE COPY